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10/569,956

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Wataru Yoshizaki

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EXAMINER

WALSH, DANIEL I

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/569,956	<b>Applicant(s)</b> YOSHIZAKI, WATARU	
	<b>Examiner</b> DANIEL WALSH	<b>Art Unit</b> 2887	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-8 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolls (US 6056194) in view of Partyka et al. (US 6250452), Schwartzendruber (US 5207784), and Whitehead (GB 2367727).

Kolls (US 6056194) teaches a system and method for networking and controlling vending machines (FIG. 1), interpreted as a network of vending machine connected together and to a management apparatus for controlling them via a communication line, goods delivering means, setting means (loading of items as conventional), and even date and time of sales/maintenance via network node communicated with by the controller 12. It is understood that a container exists to hold inventory of the vending machines (storage).

Kolls is silent to requesting a restock when a predetermined number of remaining goods resulting for a subtraction is obtained, and the timing information. However, the Examiner notes that it is well known and conventional in the art to communicate service request information from a remotely controlled vending machine, in order to remotely control them and stock them/keep them properly functioning. Including a time/date with the request is obvious to one of

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ordinary skill in the art so the remote can know the timing of the request and can act accordingly (as is conventional in the art).

Nonetheless, Partyka et al. teaches that the information transmitted from location unit 104 connecting vending machine 102 to the host 106 includes data transmitted, the time and date, and the event code occurring at the vending machine (col 8, lines 5+). Thus Partyka et al. teaches a plurality of vending machines provided with a container for goods and a vending machine management apparatus for controlling (it is able to sent new PIN and new times for the host to be called, controlling servicing/inventory, etc.), and connectivity via a communication line, each of the vending means interpreted as having goods delivering means, as is conventional in the art. Partyka et al. teaches the transmitting the time information (of the event at the vending machine) with the event code to the management apparatus (as discussed above) though transmitting/receiving means. Though silent to the event being a low stock, the Examiner notes that it is well known in the art for vending machine event codes to include numerous types of data such as (low stock, empty stock, door open, problems with the device, etc.) is useful for maintaining the vending machines. Keeping track of inventory permits when devices need to be serviced/restocked, and therefore having the event code is a low stock/out of stock is an obvious expedient in order to keep track of inventory. Further, the Examiner notes that it is obvious that a vending machine has good settings means, in order to permit it to be filled.

Nonetheless, Schwartzendruber teaches a vending machine of a vending machine network loaded with a predetermined quantity/setting means, counting the dispensed, and subtracting that count from the setting/initial count to determine when to contact a remote

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location for inventory status/restocking (col 3, lines 20+). This is interpreted as sending a request when the number obtained by subtracting is below a certain number.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Partyka et al. with those of Schwartzendruber.

One would have been motivated to do this to have an accurate count for restocking determinations.

Partyka et al./ Schwartzendruber are silent to the vending machine management apparatus comprising time information transmitting means for transmitting time managed by itself as time information to the vending machines, that the vending machines comprise time adjustment management means for managing time as time information and making the managed time coincide with the time information managed and transmitted from the vending machine management apparatus, and that the vending machine management apparatus transmits the time information managed thereby to the vending machine when receiving the restock request and wherein the time adjustment management means of the vending machine making the time managed by itself coincide with the vending machine management apparatus. However, the Examiner notes that it is well known and conventional in the art that electronic processing devices have internal clocks with timing, and that they are interpreted as being synched when the devices communicate.

Nonetheless, Whitehead teaches a vending machine exchanging data with a host, where the host/server transmits real time clock data from its clock to the vending machine, so that both clocks are synched (page 4, lines 10+), thus each has its own management timing and the

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vending machine gets synched to the server/host. Thus Whitehead teaches that vending machines have clocks (time managing) and that the times coincide (via actual communication).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Kolls/ Partyka et al. / Schwartzendruber with those of Whitehead.

One would have been motivated to do this in order to synchronize data and time data for effective/accurate/reliable communication.

Though silent to the predetermined number being based on a predicted time that a product would be sold out, the predetermined number allowing a restocking to occur before sellout, the Examiner notes that as Schwartzendruber teaches the monitoring of count values to send messages to communicate refilling is needed (based on a definable count/inventory level) the Examiner notes that it would have been obvious that such a count be of a level that would permit it to be refilled before it is out of stock. For example, if the critical level is determined to be 5 items left in inventory, the selecting of such a level would be within the ordinary skill in the art, to reduce the chance of sellouts, while also reducing unnecessary trips for refilling (such as if a much higher inventory level was set as the critical level at which to refill). Making a determination on a critical level at which to refill is within the ordinary skill, based on a desire to balance sales with unnecessary refill/servicing trips. Hence, it would have been obvious to set the number based on a predicted time (such a time being that at which a service call could be made, such as one day's inventory, for example).

Re claims 4-5, the limitations have been discussed above.

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Re claim 6, a communication line is interpreted to be present to permit electronic communication as discussed above.

Re claim 7, the limitations have been discussed above.

Re claims 8 , and 17-20, the limitations have been discussed above.

2. Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolls/Partyka et al./Schwartzendruber/Whitehead, as discussed above, further in view of Sedam (US 4412292)

Kolls/Partyka et al./Schwartzendruber/Whitehead are silent to the management apparatus responding to the request and then the vending machine cutting off communication.

Sedam teaches (col 2, lines 44+) that the vending machine sends a message to a central computer for communication, and receives a response from the central computer.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Kolls/Partyka et al./Schwartzendruber/Whitehead with those of Sedam.

One would have been motivated to do this in order to acknowledged receipt of the signal/message. Though silent as to who terminates the call, the Examiner notes it would have been an obvious matter of design variation as to who ends the communication. For example, it would have been obvious to have the vending machine cut off the communication since that could be the side initiating the call, for example, and once it has sent its data and acknowledged receipt, it could cut communication so as to not bog the network/line. It appears the invention would function equally well independent of who cuts the communication off. and once it receives acknowledgement.

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3. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being obvious over Kolls/Partyka et al./Schwartzendruber/Whitehead, as discussed above, further in view of Howell et al. (US 6462644).

Kolls/Partyka et al./Schwartzendruber/Whitehead, fail to teach the predicting as claimed.

Howell et al. teaches predictions (FIG. 4A) and that the prediction data can vary based on data to data experiences.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to make predictions in order to make operations and servicing/refilling more efficient.

Though silent to basing the restock on the predetermined number, the Examiner notes it would have been obvious to do so, to ensure that there is not a sellout (there is a couple items left before refill) to conservatively ensure no down time/missed sales.

Re claims 10-12, the Examiner notes that as the stockout/prediction information varies based on most recent operation and that as routing for servicing/refilling is performed based on these values, this can broadly be interpreted as calculating a refill time (which is associated with a restock/out of stock). Therefore, refilling is performed before stock is exhausted, including changing/rerouting servicing/refilling based on most recent data. Therefore, setting a threshold to refill at, is an obvious expedient to ensure that the machine does not experience downtime (no stock). Though silent to actually predicting a date/time when there is zero stock, the Examiner notes that predicting a near out of stock time is analogous to predicting an out of stock time, because the near out of stock time is provided in order to reduce the chance of out of stock machines and therefore takes such considerations into account, including an out of stock time. It would have been obvious to one of ordinary skill in the art, that when developing a refill time,



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that such a time would be optimized based on a predicted out of stock time, in order to not have the machines are out of stock, especially since these are predictive calculations. Therefore, not explicitly recited, it would have been obvious to calculate a out of stock time, as a reference point, to ensure refilling prior.

4. Claims 13-15 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolls/Partyka et al./Schwartzendruber/Whitehead, as discussed above, further in view of Perin, Jr. et al. (US 6356794).

The teachings of Kolls/Partyka et al./Schwartzendruber/Whitehead, have been discussed above.

Kolls/Partyka et al./Schwartzendruber/Whitehead are silent to dynamic calculations.

Perin, Jr. et al. teaches that the low dispenser inventory threshold value can be a percentage of maximum capacity, be a number based on average use, expected time to refill an item, any number, etc. (col 23, lines 65+). Therefore, the Examiner has interpreted that the number can be set/changed, as it is a number that can vary based on a plurality of variables. Hence dynamically picking/changing the low inventory value is an obvious expedient based on sales, refill time, etc. It would have been obvious to dynamically calculate/determine the inventory low value, to have an efficient refilling schedule.

Re claim 9, as discussed above, the low dispenser threshold can be set to zero. The threshold value is interpreted to be associated with a restock time (i.e. the threshold being met predicts/indicates a sellout being forthcoming).

Re claims 10-11, as discussed above, the threshold value can be adjusted based on items, averages, expected servicing time, etc.

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Re claim 12, it has been discussed above that one can set the threshold to be a number, (including zero) and that the stockout is essentially being predicted when the level in the machine over a certain time period meets certain conditions. Namely, it is within the ordinary skill in the art that the refill times coincide with (buy predate) a predicted refill time, so that the machines do not result in no stock. It would have been obvious to one of ordinary skill in the art, to optimize the refills based on a hypothetical stock out date, in light of the predictive features of the teachings of Perin, Jr. et al. Namely, it would have been obvious to calculate a out of stock time, as a reference point, to ensure refilling prior.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (See PTO-892 for a plurality of networked vending machines, monitoring and reporting of vending machine conditions, etc.).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL WALSH whose telephone number is (571)272-2409. The examiner can normally be reached on M-F 9am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Paik can be reached on 571-272-2404. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/DANIEL WALSH/

Primary Examiner, Art Unit 2887